

## ABSTRACT

A method and a welding induction coil for sealing a vessel are provided.

5 The method includes providing a vessel's body having an open end a cover including a welding part and a brim part. A diameter of the cover at the welding part is less than the inner diameter of the vessel's body for providing an air gap between the vessel's body and the welding part. The cover is placed within said open end of the vessel's body. A welding induction coil is provided around the

10 vessel's body at the place where the welding part of the cover is located. The welding induction coil is energized to generate a pulsed magnetic force sufficient to cause bending a portion of the vessel's body in a radially inward direction around the cover in the air gap. The pulsed magnetic force has such a value so to provide mutual diffusion of atoms of the vessel's body and the cover at their impact,

15 thereby to weld the vessel's body and the cover to each other.